

Abstract:

The invention relates to processes for identifying inhibitors and activators of eukaryotic potassium channels, in which a mutated *S. cerevisiae* cell is used whose endogenous
5 potassium channels TRK1, TRK2 and TOK1 are not expressed functionally, but which expresses heterologously a eukaryotic potassium channel to be studied. Other subject matters of the invention are mutated *S. cerevisiae* cells which do not express TRK1, TRK2 and TOK1, and the preparation and use of these mutated *S. cerevisiae* cells.